

CLAIMS

What is claimed is:

1. A method of scheduling a plurality of periodic events, wherein each periodic event has an associated periodic interval of time and an associated set of services, the method comprising:

determining when one of the plurality of periodic events occurs; and

distributing the execution of the services associated with that periodic event during a next periodic interval of time associated with that periodic event following the occurrence of that periodic event.

2. The method of claim 1, wherein one of the periodic events occurs when a periodic interval of time associated with that periodic event elapses.

3. The method of claim 1, wherein distributing the execution of the services includes executing successive services on successive clock ticks following a clock tick on which that periodic event occurred.

4. The method of claim 1, wherein the execution of each service is either enabled or disabled.

5. The method of claim 5, wherein the execution of each service is enable or disabled in order to implement one of a one-shot mode, a burst mode, and a continuous mode of service execution.

6. The method of claim 4, further comprising determining, for each of the set of services associated with that periodic event, if that service is enabled for execution.

7. The method of claim 6, wherein distributing the execution of the services associated with that periodic event during the next periodic interval of time includes distributing the execution of the enabled services associated with that periodic event during the next periodic interval of time associated with that periodic event following the occurrence of that periodic event.

8. The method of claim 7, wherein distributing the execution of the enabled services includes executing successive enabled services on successive clock ticks following the clock tick on which that periodic event occurred.

9. A system comprising:

a periodic event scheduler that schedules a plurality of periodic events, wherein each periodic event has an associated periodic interval of time and an associated set of services;

a tick generator that generates interrupts in response to clock ticks; and

an interrupt handler that receives the interrupts from the tick generator and executes the periodic event scheduler in response to the interrupt;

wherein the periodic event scheduler:

determines when one of the plurality of periodic events occurs; and

distributes the execution of the services associated with that periodic event during a next periodic interval of time associated with that periodic event following the occurrence of that periodic event.

10. The system of claim 9, wherein one of the periodic events occurs when a periodic interval of time associated with that periodic event elapses.

11. The system of claim 9, wherein the periodic event scheduler distributes the execution of the services by executing successive services on successive clock ticks following a clock tick on which that periodic event occurred.

12. The system of claim 9, wherein the execution of each service is either enabled or disabled.

13. The system of claim 12, wherein the execution of each service is enable or disabled in order to implement one of a one-shot mode, a burst mode, and a continuous mode of service execution.

14. The system of claim 12, wherein the periodic event scheduler also determines, for each of the set of services associated with that periodic event, if that service is enabled for execution.

15. The system of claim 14, wherein the periodic event scheduler distributes the execution of the services associated with that periodic event during the next periodic interval of time by distributing the execution of the enabled services associated with that periodic event during the next periodic interval of time associated with that periodic event following the occurrence of that periodic event.

16. The system of claim 15, wherein the periodic event scheduler distributes the execution of the enabled services by executing successive enabled services on successive clock ticks following the clock tick on which that periodic event occurred.

17. A telecommunication device comprising:

- an interface that couples the telecommunication device to a communication medium;

- a tick generator that generates interrupts in response to clock ticks; and

- control logic coupled to the interface that:

- determines when one of a plurality of periodic events occurs, wherein each periodic event has an associated periodic interval of time and an associated set of services; and

- distributes the execution of the services associated with that periodic event during a next periodic interval of time associated with that periodic event following the occurrence of that periodic event.

18. The telecommunications device of claim 17, wherein one of the periodic events occurs when a periodic interval of time associated with that periodic event elapses.

19. The telecommunications device of claim 17, wherein the control logic distributes the execution of the services by executing successive services on successive clock ticks following a clock tick on which that periodic event occurred.

20. The telecommunications device of claim 17, wherein the execution of each service is either enabled or disabled.

21. The telecommunications device of claim 20, wherein the control logic also determines, for each of the set of services associated with that periodic event, if that service is enabled for execution.

22. The telecommunications device of claim 21, wherein the control logic distributes the execution of the services associated with that periodic event during the next periodic interval of time by distributing the execution of the enabled services associated with that periodic event during the next periodic interval of time associated with that periodic event following the occurrence of that periodic event.

23. The telecommunications device of claim 22, wherein the periodic event scheduler distributes the execution of the enabled services by executing successive enabled services on successive

clock ticks following the clock tick on which that periodic event occurred.